

**REMARKS**

Claims 1-20 are pending in the application.

Claims 1-20 have been rejected.

Reconsideration of the claims is respectfully requested.

The Examiner objects to the material added in the response filed November 7, 2007, as including new matter. The undersigned apologizes if it was not made clear enough, in the last response, precisely where this matter is supported in the originally-filed application. Applicant respectfully notes the following:

With regard to the material added to Paragraph 0018, from “Assuming that two samples...” through “...from the two measurements” (including various formulas), this material is found in paragraph 0020 of the specification as originally filed on December 4, 2003, from page 9, line 15 – page 10, line 4.

With regard to added paragraphs 0025.1-0025.5, this material is found in paragraphs 0022-0026 of the specification as originally filed on December 4, 2003, from page 10, line 15 – page 13, line 8. Note that in the original specification, this material referred to Figure 2, and the steps described therein were numbered 2xx. When this subject matter was re-introduced in the previous amendment, the references were changed to refer to Figure 4, and to number the steps 4xx. Other than these informal changes in numbering, the subject matter is the same as was included in the original specification as filed.

With regard to added Figure 4, this is the same as Figure 2 as originally filed on December 4, 2003, with changes to the figure number and step numbers from Figure 2 to Figure 4, and from step numbers 2xx to step numbers 4xx. Other than these informal changes in numbering, the content of the Figure is the same as was included in the original Figures as filed.

The Examiner's objections under 35 USC 132(a) are therefore traversed, and Applicant respectfully declines to cancel this matter, as it is fully supported in the specification as filed, and includes no new matter.

The Examiner is invited to telephone the undersigned if he has any further concerns regarding this issue.

**I. CLAIM REJECTION UNDER 35 U.S.C. § 112**

Claims 1-20 were rejected under 35 U.S.C. § 112, first paragraph as claiming subject matter that is not described in the specification in a manner enabling one skilled in the relevant art to make or use the claimed invention. This rejection is respectfully traversed.

Any analysis of whether a particular claim is supported by the disclosure in an application requires a determination of whether that disclosure, when filed, contained sufficient information regarding the subject matter of the claims as to enable one skilled in the pertinent art to make and use the claimed invention. MPEP §2164.01, p. 2100-186 & 187 (8<sup>th</sup> ed., rev. 5, August 2006). The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation.

*Id.* A patent need not teach, and preferably omits, what is well known in the art. *Id.* The Patent Office has the initial burden of establishing a reasonable basis to question the enablement provided for the claimed invention. *Id.* at §2164.04, p2100-191. The minimal requirement for a proper enablement rejection is to give reasons for the uncertainty of the enablement. *Id.*

The Examiner objects to the language “wherein the average output power and at least one of an optical modulation amplitude and an extinction ratio of the light source are controlled based on values of the transmitted data contained in the emitted light” as unsupported in the specification.

The Examiner is respectfully directed to paragraph 0018 of the specification as amended, which describes that “The average power and average current will depend on the logical data value being transmitted at times  $T_1$  and  $T_2$ ”. This language is also found in paragraph 0020 of the specification as filed December 4, 2003, on page 10, lines 3-4.

Further, added paragraph 0025.1 describes “In the example depicted and described, average power is controlled by varying  $I_{mod}$  and extinction ratio is controlled by varying  $I_{mod}$ . In an alternative embodiment, the dependence of optical modulation amplitude on the modulation current  $I_{mod}$  could be determined from the equations given above, and controlled in lieu of extinction ratio” (referring to the equations in amended paragraph 0018, which depend on the logical data values being transmitted). This language is also found in paragraph 0022 of the specification as filed December 4, 2003, on page 10, line 18 – page 11, line 3.

It is clear that this language of the claims is clearly supported in the specification as originally filed, and in the material re-introduced in the previous amendments. This rejection is traversed.

Accordingly, the Applicant respectfully requests the Examiner to withdraw the § 112 rejection.

## II. CLAIM REJECTION UNDER 35 U.S.C. §102

Claims 1-2, 4-7, 9-10, 12-16 and 18-20 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0175037 to *Kimmitt, et al.*, hereinafter “Kimmitt”. This rejection is respectfully traversed.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP § 2131, p. 2100-67 (8<sup>th</sup> ed., rev. 5, August 2006) (*citing In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990)). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. *Id.* (*citing Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987)).

Claims 1 and 9 require that an “average output power” and an “optical modulation amplitude” and/or an “extinction ratio” of a light source are controlled “based on logical data values of the transmitted data contained in the emitted light.” Claim 15 similarly requires that an “average output power” and an “optical modulation amplitude” and/or an “extinction ratio” of a signal source are controlled “based on logical data values of the transmitted data contained in the emitted signal.”

The system of Kimmitt does not, in any way, rely upon the “logical data values” of data contained in transmitted light or other signals. Instead, the system of Kimmitt expressly relies upon a

“very low frequency” amplitude modulation, which creates a small amplitude modulation that is detectable in an optical feedback path of the system. (See, e.g., Par. [0030]). In other words, Kimmitt superimposes a low frequency “dither signal” onto another signal in order to bias a modulator. In fact, Kimmitt clearly describes in paragraphs [0031] and [0032] how a “residual AM envelope” is created in an optical signal and how that envelope drives a modulator bias “back toward quadrature.” This clearly shows that Kimmitt is not using the “logical data values” of transmitted data to adjust an output power of a light or signal source, as required by the claims.

The anticipation rejections are traversed.

Accordingly, the Applicants respectfully request the Examiner to withdraw the § 102 rejection with respect to these claims.

### III. CLAIM REJECTION UNDER 35 U.S.C. § 103

Claims 3, 11 and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kimmitt reference. The Applicant respectfully traverses the rejection.

Claim 8 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kimmitt reference in view of U.S. Patent No. 7,065,303 to *Kerem*, hereinafter “Kerem”. The Applicant respectfully traverses the rejection.

In rejecting claims under 35 U.S.C. § 103(a), the examiner bears the initial burden of establishing a *prima facie* case of obviousness. (*In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). See also *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984)). It is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. (*Id.* at 1073, 5 USPQ2d at 1598). In so doing, the examiner is expected to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), *viz.*, (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; and (3) the level of ordinary skill in the art. In addition to these factual determinations, the examiner must also provide “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” (*In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir 2006) (cited with approval in *KSR Int’l v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007)).

Absent such a *prima facie* case, the applicant is under no obligation to produce evidence of nonobviousness. MPEP § 2142, p. 2100-125 (8th ed. rev. 5, August 2006). To establish a *prima*

*facie* case of obviousness, three basic criteria must be met: *Id.* First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *Id.* Second, there must be a reasonable expectation of success. *Id.* Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *Id.* The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *Id.*

The limitations discussed above with regard to the independent claims and the anticipation rejections are also not taught or suggested by Kerem, or by any combination of Kimmittt and Kerem.. As no art of record, alone or in combination, teaches or suggests these features, all obviousness rejections are traversed.

Accordingly, the Applicant respectfully requests the Examiner to withdraw the § 103 rejection with respect to these claims.

**CONCLUSION**

As a result of the foregoing, the Applicant asserts that the remaining claims in the Application are in condition for allowance, and respectfully requests that this Application be passed to issue.

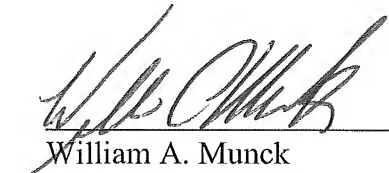
If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *[wmunck@munckbutrus.com](mailto:wmunck@munckbutrus.com)*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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Date: 04/11/08

  
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